

UC Davis scientist on a quest for cures in the cleanest of labs

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Gerhard Bauer in the UC Davis GMP facility

One of the real thrills of working at CIRM is talking to the researchers who are so excited about finding new therapies. As part of our lunchtime talk series, today we heard from Gerhard Bauer of UC Davis. The only thing more exciting to Bauer than new therapies is the thought of having those therapies come out of his beautiful new GMP lab.

A GMP (Good Manufacturing Practice) lab is a clean facility that can be used to process the cells and other products that might one day go in people. When you see photos of scientists in white suits looking through microscopes, they're likely in a GMP facility. If the lab sparkles so brightly you need sunglasses to look at the photos, it's probably one of Bauer's six GMP labs he's built since moving from Austria to the U.S. in the 1980s to work on HIV/AIDS. He's like the MacGyver of GMP labs. Nothing already manufactured was quite perfect enough for his facility, so in his spare time, you know, when he wasn't running a lab and picking paint colors for the building, he also designed better GMP equipment.

Do I sound smitten? My apologies. I do aim for professional disinterest, but I am only human and I also really, really want to see therapies for some of the diseases they are tackling in that facility. It's inspiring to see such enthusiasm in the people who are working toward those cures. Among the many diseases under investigation in the facility (Huntington's disease, peripheral artery disease, bone fractures, liver disease) Bauer is part of the Stanford Disease Team working toward a therapy for the horrific childhood skin disorder epidermolysis bullosa. He and other members of that team recently spoke about the work at a governing board meeting. Videos of those talks are available here, but be warned that the disease is awful and the images are graphic. Personally, I can't look.

One fun thing we learned is that Bauer has been taking on CIRM Bridges interns and training them in GMP procedures (here's a video about the Bridges program if you aren't familiar with it). He's hired one, and has another working in the lab now. That's exactly what we were hoping for in the Bridges program. Undergrad or masters students are learning stem cell science and getting trained for jobs in California's expanding stem cell biology sector.

The lunch talks are a great opportunity for CIRM staff to hear about how those disease teams are progressing and to understand the challenges. Getting to a cure isn't easy. One thing we all learned from Bauer's talk is that whatever therapy the team comes up with, it's going to be absolutely, totally, completely GMP certified. And clean? It's going to be clean. Because when Bauer wasn't dreaming up better lab equipment he was also certifying the cleaning protocols.

Here's a video we made last year about the GMP facility:

- A.A.

Tags: University of California Davis, epidermolysis bullosa, bauer, huntinton's disease

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